CLAIMS

What is claimed is:

1. An apparatus comprising:

a first electronic device having a first communication port, said first electronic device comprising:

one or more services configured to communicate with a second device through said first communication port;

a contention manager configured to:

receive a port request from said one or more services for control of said first communication port;

determine when to take control of said first communication port from a currently controlling service; and

transfer control of said first communication port to a requesting service;

a web server serving one or more web pages via a network link, said one or more web pages associated with said second device.

2. The apparatus of claim 1:

wherein said first device further comprises a second communication port; and

wherein said contention manager is configured to provide a communication path between said first communication port and said second communication port in response to a pass-through request.

3. The apparatus of claim 2, wherein said pass-through request is received from said one or more services.

4. The apparatus of claim 2, wherein said pass-through request comprises a first identifier associated with said first port and a second identifier associated with said second communication port.

5. The apparatus of claim 2, wherein said communication path is subject to a timeout parameter.

6. The apparatus of claim 5, wherein said pass-through request comprises said timeout parameter.

7. The apparatus of claim 6, wherein said timeout parameter is associated with the time between receipt of consecutive characters.

8. The apparatus of claim 2, wherein said communication path is subject to a data length parameter in said pass-through request.

9. The apparatus of claim 2, wherein said communication path is subject to a delimiter character specified in said pass-through request.

10. The apparatus of claim 1, wherein said port request comprises one or more timeout parameters.

11. The apparatus of claim 10, wherein said one or more timeout parameters comprise a per character timeout.

12. The apparatus of claim 10, wherein said one or more timeout parameters comprise an intial character timeout.

13. The apparatus of claim 1, wherein said port request comprises a port identifier.

14. The apparatus of claim 1, wherein said port request comprises a delimiter parameter.

15. The apparatus of claim 14, wherein said contention manager compares incoming data with said delimiter parameter.

16. The apparatus of claim 1, wherein said port request comprises a data length parameter.

17. The apparatus of claim 16, wherein said contention manager counts incoming data units and takes control of said first communication port when the number of said incoming data units reaches said data length parameter.

18. The apparatus of claim 1, wherein said web server is configured to serve web pages associated with configuring said first device.

19. The apparatus of claim 18, wherein said web pages associated with configuring said first device comprise one or more web elements for activating said one or more services.

20. An apparatus comprising:

a controller configured to send and receive control information through a first type of communication port;

a controlled device configured to receive and send said control information through said first type of port;

a web server device having a first port coupled to said controller and a second port coupled to said controlled device, wherein said first port and said second port are of said first type, wherein said web server device comprises:

a first service associated with said controller, said first service configured to initiate a request for a communication path between said first port and said second port when said controller sends said control information to said first port;

a second service associated with said controlled device, said second service configured to initiate a request for said second port to communicate with said controlled device; and

a contention manager configured to transfer control of said second port to a requesting service when said second port is available, said contention manager further configured to monitor use of said second port based on parameters associated with a current request.

21. The apparatus of claim 20, wherein said second service is an executed script.

22. The apparatus of claim 20, wherein said web server device is coupled to a browser over a network connection, said web server device serving one or more web pages for a user to have an interaction with said controlled device through said second service.

23. The apparatus of claim 22, wherein said interaction comprises control.

24. The apparatus of claim 22, wherein said interaction comprises monitoring of said controlled device.

25. The apparatus of claim 20, wherein said first type of port comprises a serial port.

26. In a device having a plurality of services sharing one or more common ports, a method for managing port contention comprising:

receiving a request from a service for control of a port, said request comprising one or more parameters;

transferring control of said port to said service when said port is available; and

rescinding control of said port by said service based upon said parameters, making said port available to other services.

27. The method of claim 26, wherein said request is a pass-through request and said one or more parameters comprise at least two port identifiers between which a communication path is to be obtained.

28. The method of claim 26, wherein said parameters comprise one or more timeout values.

29. The method of claim 28, wherein said one or more timeout values comprise a per character timeout.

30. The method of claim 28, wherein said one or more timeout values comprise an initial character timeout.

31. The method of claim 26, wherein said parameters comprise delimiter criteria against which incoming data is compared.

32. The method of claim 26, wherein said parameters comprise a data length against which a count of incoming data units is compared.

33. A method for inserting a web server device into a communication path between a first device and a second device, comprising:

coupling said first device to a first port of said web server device;

coupling said second device to a second port of said web server device;

in response to detection of a transmission from said first device,

obtaining a pass-through request for a pass-through connection between said first port and said second port;

providing said pass through connection when said second port is available;

maintaining said pass-through connection until termination criteria in said pass-through request are satisfied;

in response to a port request for control of said second port from a service in said web server device,

providing control of said second port to said service when said second port is available; and

maintaining control of said second port by said service until termination criteria in said port request are satisfied.

34. The method of claim 33, further comprising providing communication between a user and said second device through one or more served web pages when said service has control of said second port.

35. The method of claim 33, wherein said termination criteria comprise one or more timeout values.

36. The method of claim 33, wherein said termination criteria comprise a delimiter character that is compared with incoming data.

37. The method of claim 33, wherein said termination criteria comprise a data length value that is compared with a count of incoming data units.